DAEWOO

S/M No. : FR38030013

Service Manual

Model: FR-3501, 3502, 3503
FR-3801, 3802, 3803

✔ **Caution**

: In this Manual, some parts can be changed for improving, their performance without notice in the parts list. So, if you need the latest parts information,please refer to PPL(Parts Price List) in Service Information Center (http://svc.dwe.co.kr).

DAEWOO ELECTRONICS CO., LTD.

http : //svc.dwe.co.kr Apr. 2001

SAFETY AND PRECAUTIONS

1) For starters, be sure to check any chances of the leakage of electricity.
2) You could handle a part in the vicinity of electricity after unplugging.
3) You should put on rubber gloves to prevent an electric shock on operation test.
4) Make sure the rated current, voltage, capacity before using an instrument.
5) Keep your wet hands away from the metal goods in the freezer compartment not to be frostbitten.
6) Be careful not to let water to permeate the electric part in the machine room.
7) With the door open during your repair, you might be hurt by that door.
8) You should give a tilt to the refrigerator for your safe after removing the breakable goods inside the refrigerator.
9) You'd better use gloves if you fix it up around the evaporator.

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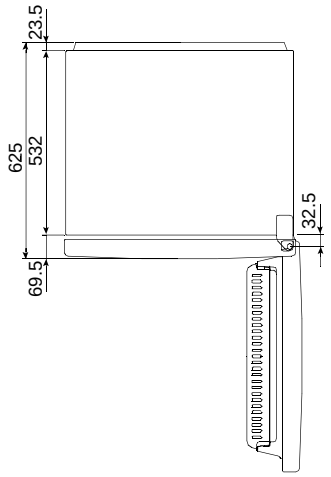
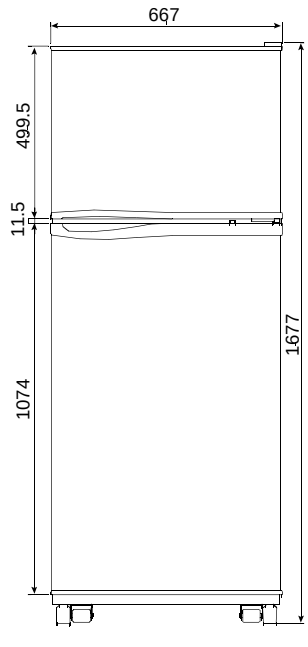
SPECIFICATION

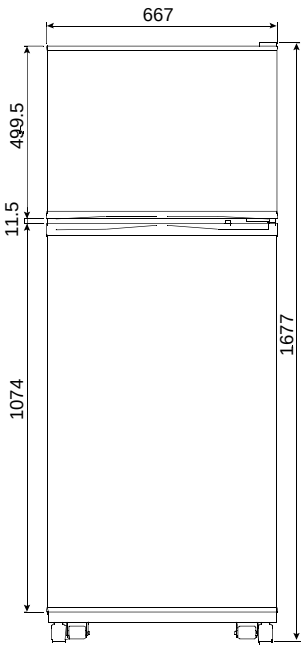
Model Name		FR-3501 FR-3502 FR-3503		FR-3801 FR-3802 FR-3803	
Cooling system		Fan Cooling Convention Type			
Refrigeration System		Air Forced Convention			
Defrost System		Forced Fin-Evaporator Type			
Defrost Operation		Automatic start & stop			
Cold Control		Adjustable Dial			
Method		NET	GROSS	NET	GROSS
Capacity (l)	Freezer	73	79	73	79
	Refrigerator	204	241	218	254
	Total	277	320	291	333
External Dimension (mm)	Width (W)	667		667	
	Depth (D)	625		625	
	Height (H)	1677		1727	
Net Weight (kg)		60		61	

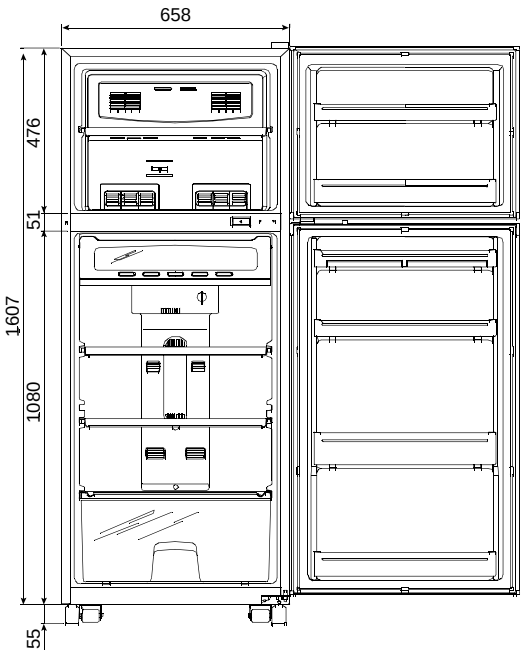
EXTERNAL VIEWS

1. FR-3501, 3502, 3503

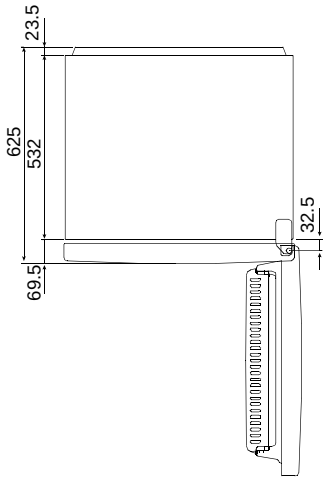


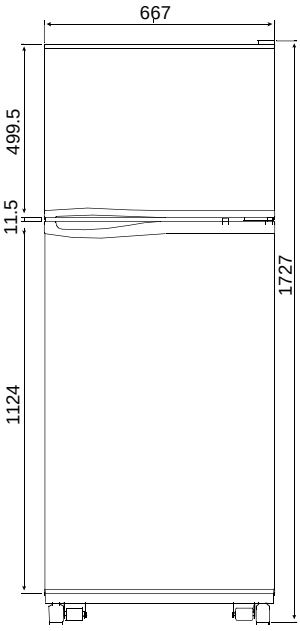




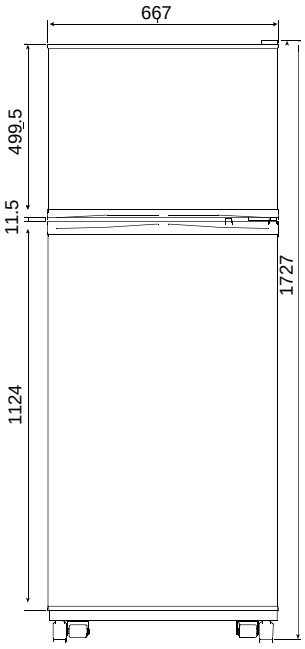


2. FR-3801, 3802, 3803

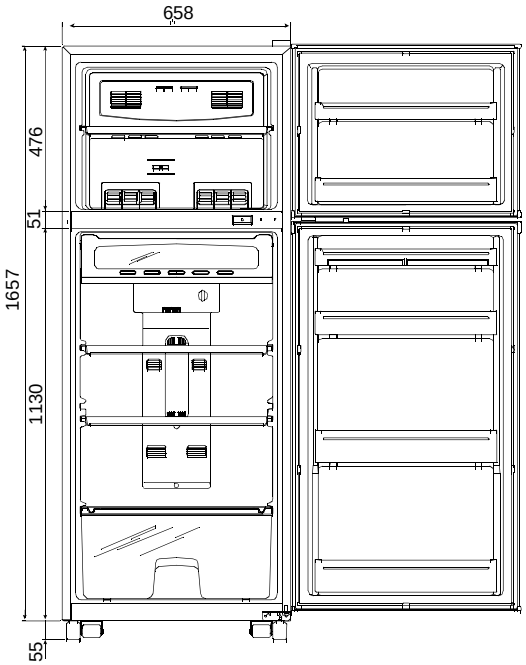




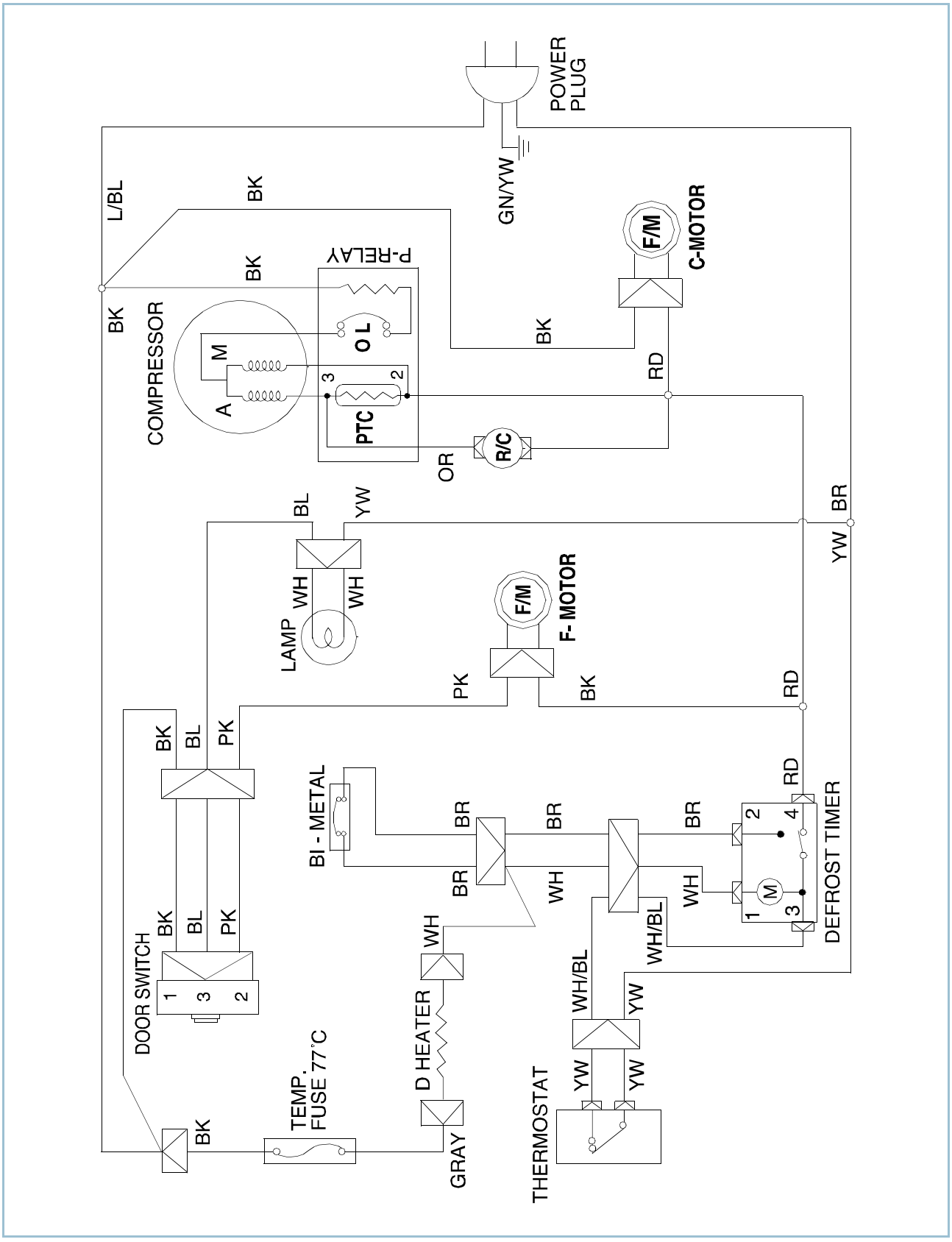
(FR-3801)



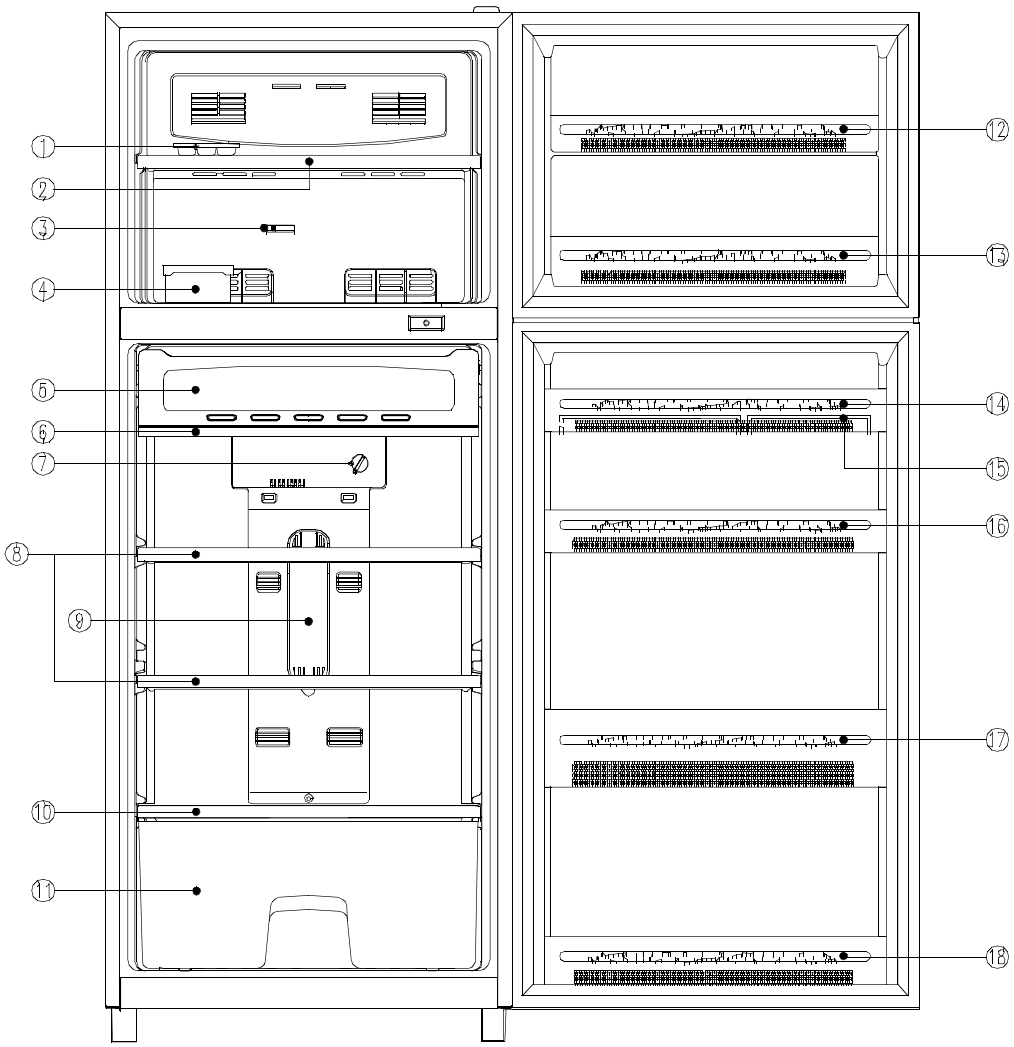
(FR-3802)



WIRING DIAGRAM



NAME OF PARTS



1 CASE ICING
2 F SHELF (REMOVABLE)
3 FREEZER TEMPERATURE CONTROL KNOB
4 CASE ICE
5 CHILLED CASE DOOR
6 CASE CHILLED
7 REFRIGERATOR TEMPERATURE CONTROL SWITCH
8 R SHELF (REMOVABLE)
9 LAMP COVER (SHADE R)
10 COVER CASE VAGETB
11 CASE VEGETABLE
12 FREEZER POCKET (TOP)
13 FREEZER POCKET (BOTTOM)
14 UTILITY POCKET (TOP)
15 CASE EGG
16 UTILITY POCKET (BOTTOM)
17 BOTTLE POCKET (TOP)
18 BOTTLE POCKET (BOTTOM)

AIR FLOW DIAGRAM

AIR CIRCULATION
in the Freezer.

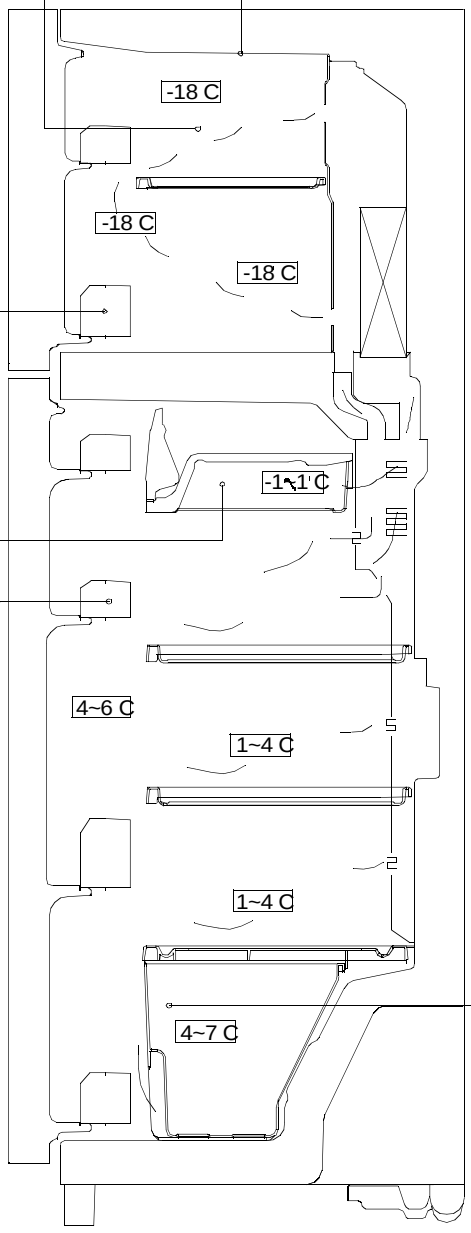
Cold air flow comes out from the upper hole and comes into the lower hole in louver.

FREEZER
COMPARTMENT

Do not put in any breakable bottle.

FREEZER COMPARTMENT
DOOR POCKET

Do not store ice cream or frozen food for a long time. Temperature may rise with frequent opening and closing.



REFRIGERATOR
COMPARTMENT

Do not place frozen food near the duct. It may freeze due to low temperature.

FRESH FOOD PRESERVING
CASE(CHILLED CASE)

Use for storing fish or meat.

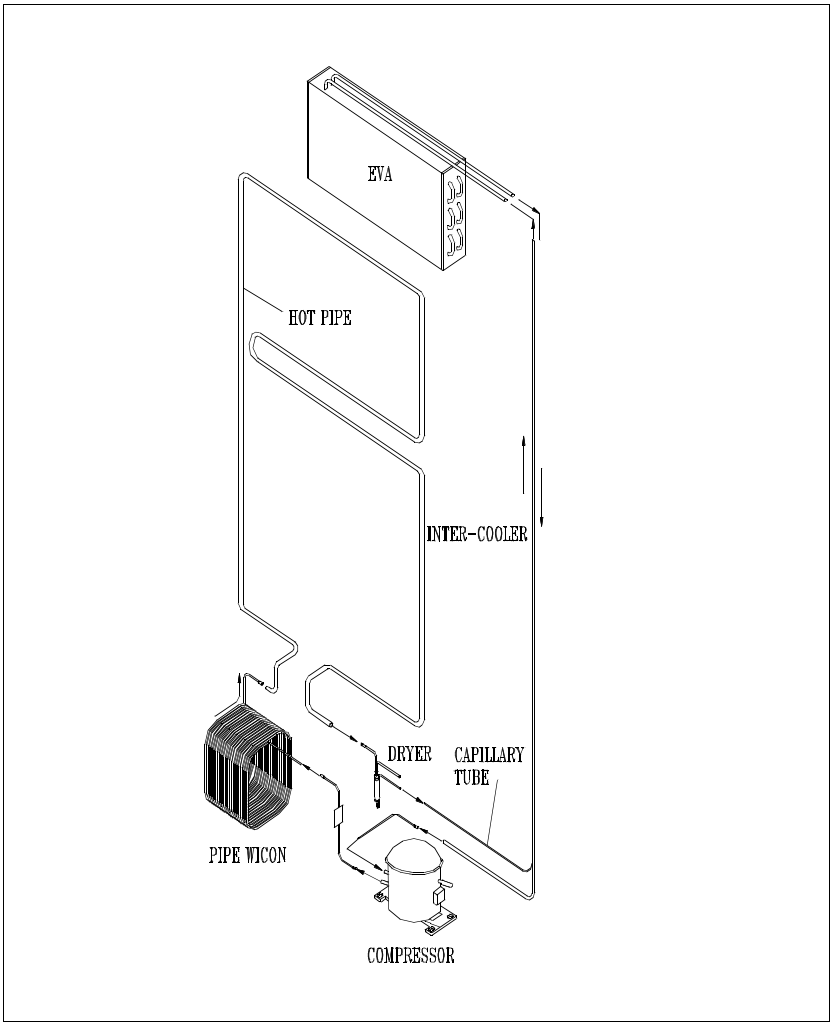
REFRIGERATOR COM-
PARTMENT DOOR POCKET

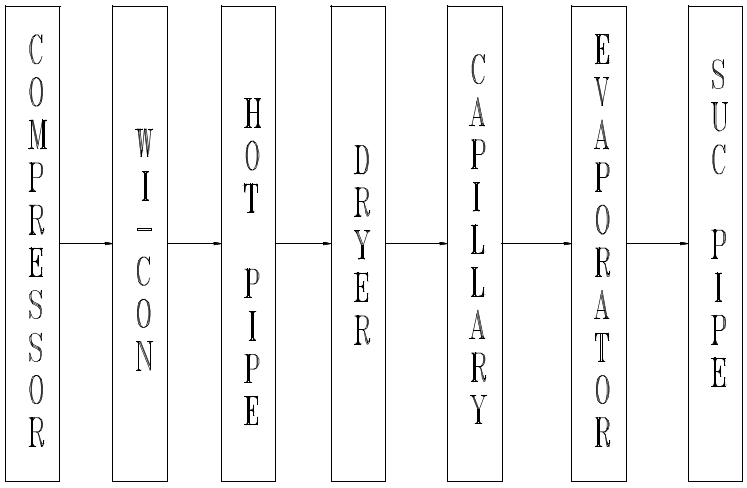
The temperature of this position is high. When margarine or something is stored for 1~2 week, You may refrigerator shelf.

CASE VEGETABLE

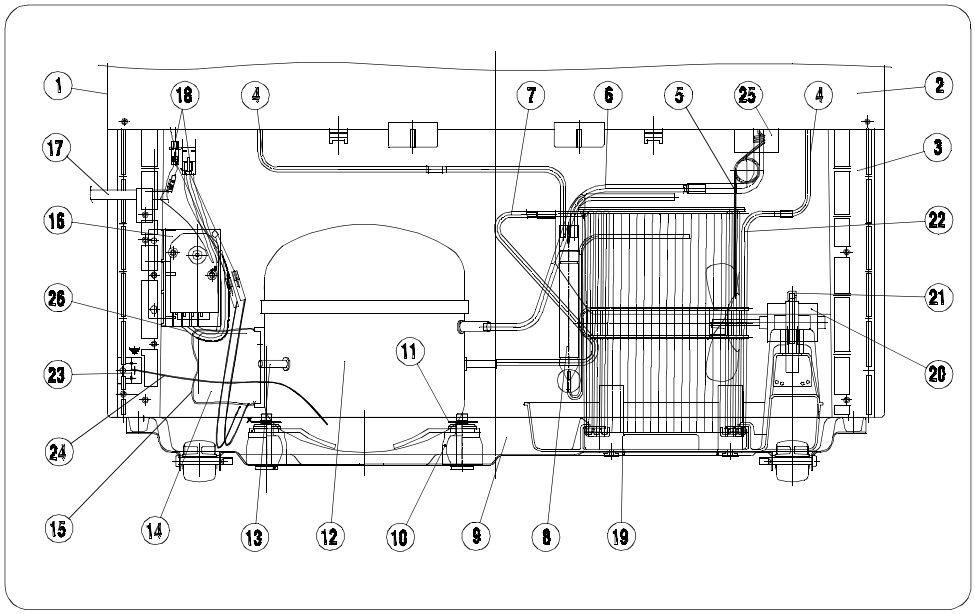
Vegetables should be stored in this vessel and wrap is used to keep them flesh.

REFRIGERANT CYCLE DIAGRAM





MACHINE ROOM VIEW AND PART LIST



NO.	PART NAM E	NO.	PART NAME
1	CABINET AS	14	SWITCH P-RELAY AS
2	COVER CAB	15	BAND RELAY
3	BASE CAB AS	16	BOX POWER AS
4	PIPE HOT	17	CORD POWER AS
5	PIPE SUC AS	18	HARNESS MAIN
6	PIPE SUC CONN	19	CASE VAPORI
7	PIPE CONN A	20	C-FAN MOTOR
8	DRYER AS	21	FIXTURE C MOTOR AS
9	BASE COMP AS	22	WI-CON AS
10	ABSORBER COMP	23	BRACKET EARTH
11	WASHER COMP * T	24	WIRE EARTH
12	COMPRESSOR	25	BANGJIN GUM
13	PIPE SERVICE	26	HARNESS TIMER AS

MAIN COMPONENTS

1. COMPRESSOR

Refrigerant	R-12				
Voltage	110V/60Hz	127V/60Hz	220~240V/50Hz	220V/50Hz	220V/60Hz
Comp. model	CL23YE-3-C	CL23YE-2-C	SL25YE-5-C	KL25YE-5-C	PL23YE-4
Part code	3951123C10	3957123C20	3954125C80	3958125C50	3956123841
Starting type	CSIR	CSIR	RSIR	CSIR	RSCR
Refrigerant(g)	130				

Refrigerant	R-134a			
Voltage	110V/50, 60Hz	110V/60Hz	115V/60Hz	220~240V/50Hz
Comp. model	HBL23YE-C	HBL23YE-3-C	HBL23YE-3-C	HSL25YE-5-C
Part code	3952123L00	3952123L30	3952123L30	3954125L50
Starting type	CSR	CSR	CSR	CSIR
Refrigerant(g)	120			

2. SWITCH RELAY AS

Refrigerant	R-12				
Voltage	110V/60Hz	127V/60Hz	220~240V/50Hz	220V/50Hz	220V/60Hz
Relay model	427THBYY-52	414THBYY-52	276THBYY-52	724RFBYY-52	197SHBYY-52
Part code	3018114660	3018114640	3018114630	3018115300	3018114620
Starting type	CSIR	CSIR	RSIR	CSIR	RSCR

Refrigerant	R-134a			
Voltage	110V/50, 60Hz	110V/60Hz	115V/60Hz	220~240V/50Hz
Relay model	414THBYY-52	427THBYY-52	427THBYY-52	232THBYY-52
Part code	3018114610	30181146	3018114600	3018114650
Starting type	CSR	CSR	CSR	CSIR

3.STARTING CAPACITOR

Refrigerant	R-12				
Voltage	110V/60Hz	127V/60Hz	220~240V/50Hz	220V/50Hz	220V/60Hz
Spec.	140V/100F	140V/100F	X	350V/25F	X
Part code	3016400400	3016400400	X	400EL16110	X

Refrigerant	R-134a			
Voltage	110V/50, 60Hz	110V/60Hz	115V/60Hz	220~240V/50Hz
Spec.	414THBYY-52	427THBYY-52	427THBYY-52	232THBYY-52
Part code	3018114610	30181146	3018114600	3018114650

3. STARTING CAPACITOR

Refrigerant	R-12				
Voltage	110V/60Hz	127V/60Hz	220~240V/50Hz	220V/50Hz	220V/60Hz
Spec.	X	X	X		350V/5 F
Part code	X	X	X	X	400EL15111

Refrigerant	R-134a			
Voltage	110V/50, 60Hz	110V/60Hz	115V/60Hz	220~240V/50Hz
Spec.	230V/10F	300V/7 F	300V/7 F	X
Part code	400EL15130	3816800400	3816800400	X

5.FAN MOTOR

Refrigerant		R-12, R-134a						
Voltage		100V/50, 60Hz	110V/60Hz	115V/60Hz	127V/60Hz	220V/50Hz	220V/60Hz	220~240V/50Hz
Spec.		100V/50, 60Hz	110V/60Hz			220V/50Hz	220V/60Hz	240V/50Hz
Part	MOTOR F AS	3015900540	3015900500			3015900520	3015900530	3015900510
code	MOTOR AS							

6. HEATER D AS

Refrigerant	R-12, R-134a					
Voltage	100V/50, 60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50, 60Hz	220~240V/50Hz
Spec.	110V/148W				220V/148W	
Part code	3012804300				3012804200	

7. LAMP AS

Refrigerant	R-12, R-134a					
Voltage	100V/50, 60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50, 60Hz	220~240V/50Hz
Spec.	120V/15W				240V/148W	
Part code	3013600050				3013600020	

8.DEFROST TIMER

Refrigerant	R-12, R-134a					
Voltage	100V/50, 60Hz	110V/60Hz	115, 120V/60Hz	127V/60Hz	220V/50, 60Hz	220~240V/50Hz
Spec.	100~127V/60Hz				220~240V/50, 60Hz	
Part code	3018101200				3018100310	

9.DRYER

Refrigerant	R-12	R-134a
Spec.	10g	15g
Part code	3016800103	3016801100

10. ASSY F DOOR - FR-3501, 3801

Refrigerant	R-12		R-134a	
	ASSY F DOOR	DOOR F PRE AS	ASSY F DOOR	DOOR F PRE AS
Bright PCM Door	PFDT1CG250	PFDT1PG110	PFDT1CG255	PFDT1PG115
Laminate PCM Door	PFDT1CG230	PFDT1PG070	PFDT1CG235	PFDT1PG075

10-1. ASSY F DOOR - FR-3502, 3802

Refrigerant	R-12		R-134a	
	ASSY F DOOR	DOOR F PRE AS	ASSY F DOOR	DOOR F PRE AS
Bright PCM Door	PFDT1CG260	PFDT1PG120	PFDT1CG265	PFDT1PG125
Laminate PCM Door	PFDT1CG240	PFDT1PG080	PFDT1CG245	PFDT1PG085

11. ASSY R DOOR - FR-3501

Refrigerant		R-12		R-134a	
		ASSY F DOOR	DOOR F PRE AS	ASSY F DOOR	DOOR F PRE AS
Bright PCM Door	No KEY TYPE	PFDU2CG230	PFDU2PG110	PFDU2CG235	PFDU2PG115
	KEY TYPE	PFDU2CG270	PFDU2G250	PFDU2CG275	PFDU2PG255
Laminate PCM Door	No KEY TYPE	PFDU2CG060	PFDU2PG060	PFDU2CG065	PFDU2PG065
	KEY TYPE	PFDU2CG110	PFDU2PG180	PFDU2CG115	PFDU2PG185

PART LIST(FR-3501, 3502, 3503)

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No.	PART CODE	PART NAME	DESCRIPTION	Q TY	REMARK
1	PFCCCUG080	ASSY CAB URT	PRE+URT	1	R-11
	PFCCCUG085				R-141B
1-1	3017001700	EVAPORATOR SAS		1	
1-2	3018111800	SWITCH BI-METAL AS		1	
1-3	3017200600	FUSE TEMP AS		1	250V/10A, 77 C
1-4	4017Z90590	FIXTURE FUSE TEMP		1	
1-5	4017Z73570	COVER DEFR HTR *T	AI T0.4	1	
1-6		HEATER D AS		1	
1-7	4017Z73580	COVER DEFR HTR *U	AI T0.4	1	
1-8	3012906700	HINGE *U AS	P/D T3.2	1	
1-9	7650602011	BOLT HEX	M6 X 20	2	
2	3010313500	BASE COMP AS		1	
2-1	3010317530	BASE COMP AS	SBHG T1.0	1	
2-2	3010100201	ABSORBER COMP	NR H=40	4	
2-3	3012610000	BAND RELAY	SK-5 T0.7	1	
2-4	-	SWITCH RELAY AS	DESCRIPTION	1	
2-5	3016002500	SPECIAL WASHER	SWRH	4	
2-6	-	COMPRESSOR		1	
2-7	-	DRYER AS		1	
2-8	3013201710	HOSE DRN B	PP	1	
2-9	7112401211	SCREW TAPPING	T1 TRS 4X12	2	
2-10	3014436300	PIPI WICON AS		1	
2-11	3011200500	CLAMP FAN	SUS304	1	
2-12	3011802200	FAN	ABS 3.17	1	
2-13	3012006000	FIXT C MOTOR AS		1	
2-14	-	MOTOR C		1	
2-15	3011117400	CASE VAPORI	PP	1	
3		MOTOR F AS		1	
3-1	4017Z32244	COVER FAN MOTOR(B)	HIPS	1	
3-2	4017Z08430	ABSORBER MOTOR	EPR-B3	2	
3-3		MOTOR AS		1	
3-4	4017Z32233	COVER FAN MOTOR(C)	HIPS	1	
3-5	4019H32230	COVER FAN MOTOR(A)	HIPS	1	
3-6	4019H10310	FAN	ABS	1	
3-7	4019H100600	RING FIX FAN	STS 27	1	
4	3018906100	LOUVER AS			
4-1	3013327800	INSU F LUVR AS	F-PS	1	
4-2	3013401000	KNOB F LUVR	PP	1	
4-3	3018905700	LOUVER F	PP	1	
5	3016908700	DUCT R MULT AS		1	
5-1	3016907900	DUCT R MULTI	PP	1	
5-2	3018301300	THERMOSTAT	PFN-175D-01	1	
			BU-274		
5-3	7121400811	SCREW TAPPING	T2S PAN 4 X 8	2	
5-4	3017903200	SOCKET R LAMP AS		1	
5-5	3013327900	INSU R MULT DUCT AS	F-PS	1	
5-6	4008Z14310	KNOB C/S	ABS	1	
6		ASSY F DOOR		1	
6-1	PFDT1UG070	DOOR F URT AS	PRE+URT	1	R-11
	PFDT1UG075				R-141B
6-1-1	3015200900	STOPPER *M HI	POM	1	

No.	PART CODE	PART NAME	DESCRIPTION	Q TY	REMARK
6-1-2	7112401611	SCREW TAPPING	T1 TRS 4X16 MFZN	2	
6-1-3	4010Y36211	BUSHING R HNDL	PP	1	
6-2	3012306900	GASKET F DR AS	PVC+MAGNET	1	
6-3	3019009400	POCKET F *T	PS	1	
6-4	3019009600	POCKET F *U	PS	1	
7		ASSY R DOOR		1	
7-1	PFDU2UG060	DOOR R URT AS	PRE+URT	1	R-11
	PFDU2UG065				R-141B
7-1-1	4010Y36211	BUSHING R HNDL	PP	1	
7-1-2	4010G38023	BUSHING R DR	PA-66	1	
7-1-3	4010G38034	STOPPER R DR	SGCC T3.0	1	
7-1-4	7122401611	SCREW TAPPING	T2 TRS 4X16	2	
7-2	3012307000	GASKET R DR AS	PVC+MAGNET	1	
7-3	3011115600	CASE EGG	PS	1	
7-4	3019009400	POCKET F *T	PS	1	
7-5	3019009400	POCKET F *T	PS	1	
7-6	3019009300	POCKET BOTTLE	PS	1	
7-7	3019009600	POCKET F *U	PS	1	
8	3012101300	FOOT ADJ AS	PP	2	
9	3012906300	HINGE *M AS	T3.2	1	
10	3016004000	SPECIAL BOLT	M6XL10	2	
11	3011721300	DOOR SWITCH AS		1	
12	3012906500	HINGE *T AS	P/O T2.3	1	
13	3016000301	SPECIAL SCREW	M5XL14	3	
14	3011430100	COVER *T HI	PP	1	
15	7650602011	BOLT HEX	M6XL20	1	
16	4017Z99112	CASE ICE	HC-2	1	
17	3011100300	CASE ICING	PP	1	
18	4010C55112	SHELF F	PS	1	
19	4010E30312	CASE CHILLED	PS	1	
20	3011721500	DOOR C/C	PS	1	
21	4010C55211	SHELF R	PS	2	
22	3011424800	COVER VEGETB CASE	PS	1	
23	3011115500	CASE VEGETB	PS	1	
24		LAMP AS		1	
25	3015503600	WINDOW R	HC-2	1	
26	30111161200	CASE VAPORI	PP	1	
27	3012400800	GRILLE	PP	1	
28	7112401211	SCREW TAPPING	T1 TRS 4X12	5	
29	3011303300	CORD POWER AS (KP-211)	110V/50/60Hz	1	
	3011301700	CORD POWER AS (KP-30)	115V/60Hz	1	
	3011303500	CORD POWER AS (CP-2PIN)	220V/50Hz	1	
	3011303800	CORD POWER AS (CP-2PIN)	220V/60Hz	1	

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1	PFCCCUG080	ASSY CAB URT	PRE+URT	1	R-11
	PFCCCUG085				R-141B
1-1	3017001700	EVAPORATOR SAS		1	
1-2	3018111800	SWITCH BI-METAL AS		1	
1-3	3017200600	FUSE TEMP AS		1	250V/10A, 77 C
1-4	4017Z90590	FIXTURE FUSE TEMP		1	
1-5	4017Z73570	COVER DEFR HTR *T	AI T0.4	1	
1-6		HEATER D AS		1	
1-7	4017Z73580	COVER DEFR HTR *U	AI T0.4	1	
1-8	3012906700	HINGE *U AS	P/D T3.2	1	
1-9	7650602011	BOLT HEX	M6 X 20	2	
2	3010313500	BASE COMP AS		1	
2-1	3010302800	BASE COMP SAS	SBHG-1	1	
2-2	3010100201	ABSORBER COMP	NR-A	4	
2-3		COMPRESSOR		1	
2-4	4019H09030	SPECIAL WASHER	SPG T1.0	4	
2-5		SWITCH RELAY AS		1	
2-6	3816100100	BAND RELAY	SK-5, T0.7	1	
3		MOTOR F AS		1	
3-1	4017Z32244	COVER FAN MOTOR(B)	HIPS	1	
3-2	4017Z08430	ABSORBER MOTOR	EPR-B3	2	
3-3		MOTOR AS		1	
3-4	4017Z32233	COVER FAN MOTOR(C)	HIPS	1	
3-5	4019H32230	COVER FAN MOTOR(A)	HIPS	1	
3-6	4019H10310	FAN	ABS	1	
3-7	4019H100600	RING FIX FAN	STS 27	1	
4	3018906100	LOUVER AS			
4-1	3013327800	INSU F LUVR AS	F-PS	1	
4-2	3013401000	KNOB F LUVR	PP	1	
4-3	3018905700	LOUVER F	PP	1	
5	3016908700	DUCT R MULT AS		1	
5-1	3016907900	DUCT R MULTI	PP	1	
5-2	3018301300	THERMOSTAT	PFN-175D-01	1	
			BU-274		
5-3	7121400811	SCREW TAPPING	T2S PAN 4 X 8	2	
5-4	3017903200	SOCKET R LAMP AS		1	
5-5	3013327900	INSU R MULT DUCT AS	F-PS	1	
5-6	4008Z14310	KNOB C/S	ABS	1	
6		ASSY F DOOR		1	
6-1	PFDT1UG070	DOOR F URT AS	PRE+URT	1	R-11
	PFDT1UG075				R-141B
6-1-1	3015200900	STOPPER *M HI	POM	1	

No.	PART CODE	PART NAME	DESCRIPTION	Q TY	REMARK
6-1-2	7112401611	SCREW TAPPING	T1 TRS 4X16 MFZN	2	
6-1-3	4010Y36211	BUSHING R HNDL	PP	1	
6-2	3012306900	GASKET F DR AS	PVC+MAGNET	1	
6-3	3019009400	POCKET F *T	PS	1	
6-4	3019009600	POCKET F *U	PS	1	
7		ASSY R DOOR		1	
7-1	PFDU2UG060	DOOR R URT AS	PRE+URT	1	R-11
	PFDU2UG065				R-141B
7-1-1	4010Y36211	BUSHING R HNDL	PP	1	
7-1-2	4010G38023	BUSHING R DR	PA-66	1	
7-1-3	4010G38034	STOPPER R DR	SGCC T3.0	1	
7-1-4	7122401611	SCREW TAPPING	T2 TRS 4X16	2	
7-2	3012307000	GASKET R DR AS	PVC+MAGNET	1	
7-3	3011115600	CASE EGG	PS	1	
7-4	3019009400	POCKET F *T	PS	1	
7-5	3019009400	POCKET F *T	PS	1	
7-6	3019009300	POCKET BOTTLE	PS	1	
7-7	3019009600	POCKET F *U	PS	1	
8	3012101300	FOOT ADJ AS	PP	2	
9	3012906300	HINGE *M AS	T3.2	1	
10	3016004000	SPECIAL BOLT	M6XL10	2	
11	3011721300	DOOR SWITCH AS		1	
12	3012906500	HINGE *T AS	P/O T2.3	1	
13	3016000301	SPECIAL SCREW	M5XL14	3	
14	3011430100	COVER *T HI	PP	1	
15	7650602011	BOLT HEX	M6XL20	1	
16	4017Z99112	CASE ICE	HC-2	1	
17	3011100300	CASE ICING	PP	1	
18	4010C55112	SHELF F	PS	1	
19	4010E30312	CASE CHILLED	PS	1	
20	3011721500	DOOR C/C	PS	1	
21	4010C55211	SHELF R	PS	2	
22	3011424800	COVER VEGETB CASE	PS	1	
23	3011115500	CASE VEGETB	PS	1	
24		LAMP AS		1	
25	3015503600	WINDOW R	HC-2	1	
26	30111161200	CASE VAPORI	PP	1	
27	3012400800	GRILLE	PP	1	
28	7112401211	SCREW TAPPING	T1 TRS 4X12	5	
29	3011303300	CORD POWER AS (KP-211)	110V/50/60Hz	1	
	3011301700	CORD POWER AS (KP-30)	115V/60Hz	1	
	3011303500	CORD POWER AS (CP-2PIN)	220V/50Hz	1	
	3011303800	CORD POWER AS (CP-2PIN)	220V/60Hz	1	

EXPLODED VIEW